

REMARKS

I. Status of the Application

Claims 1-13 are pending in this application. In the June 2, 2004 Office action, the examiner:

- (i) objected to the drawings and the abstract for various informalities;
- (ii) rejected claims 1-13 under 35 U.S.C. § 112, first paragraph as being unpatentable for allegedly failing to provide an enabling disclosure for the claimed invention in the specification;
- (iii) rejected claims 1-10 under 35 U.S.C. § 112, second paragraph as allegedly being indefinite;
- (iv) rejected claims 1-5, 8, and 11 under 35 U.S.C. § 102(b) as allegedly being anticipated by Abramovici et al. in "*Digital Systems Testing and Testable Design*" IEEE Press 1990 (hereinafter, "Abramovici"); and
- (v) rejected claims 6 and 7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Abramovici.

In this response, applicants have (i) amended the drawings and abstract to overcome the examiner's objections; (ii) traversed the examiner's rejection under 35 U.S.C. § 112, first paragraph; (iii) amended claim 1 to overcome the examiner's rejection under 35 U.S.C. § 112, second paragraph, and amended claim 8; (iv) traversed the examiner's rejection under 35 U.S.C. § 102(b) as allegedly being anticipated by Abramovici; (v) traversed the examiner's rejection under 35 U.S.C. § 103(a) as allegedly being unpatentable over Abramovici; and (vi) added new claims 14-16.

II. Objections to the Drawings and Abstract

In the June 2, 2004 Office action, the examiner objected to the drawings because descriptive labels other than numerical references were needed for figures 1 and 2. In this response, applicant has amended the drawings to include appropriate labels for figures 1 and 2. Accordingly, it is respectfully submitted that the examiner's objection to the drawings should be withdrawn.

In the June 2, 2004 Office action, the examiner also objected to the abstract. In this response, applicant has amended the abstract to remove any mention of the prior art. Accordingly, it is respectfully submitted that the examiner's objection to the abstract should be withdrawn.

III. 35 U.S.C. § 112 Rejections

A. 35 U.S.C. § 112, First Paragraph, Rejections

In the June 2, 2004 Office action, the examiner rejected claims 1-13 under 35 U.S.C. § 112, first paragraph, as being unpatentable for allegedly failing to provide an enabling disclosure for the claimed invention in the specification. Applicants respectfully traverse the examiner's rejection of claims 1-13 under 35 U.S.C. § 112, first paragraph.

On page 3 of the June 2, 2004 Office action, the examiner's states that "the specification, while being enabling for allowing an output of test data, does not reasonably provide enablement for testing a semiconductor memory." The examiner goes on to say that the "specification does not enable any person skilled in the art to which it pertains ... to use the invention commensurate in scope with these claims."

Applicant respectfully submits that not everything necessary to practice the

claimed invention need be disclosed in a specification. MPEP § 2164.08. "All that is necessary is that one skilled in the art be able to practice the claimed invention, given the level of knowledge of skill in the art." Id. In addition, "even if two distinct technologies are relevant to an invention, then the disclosure will be adequate if a person of ordinary skill in each of the two technologies could practice the invention from the disclosures." MPEP 2164.05(b). In the present case, applicant has not provided exhaustive details on semiconductor memory testing, as one of ordinary skill in the art could easily take the disclosure related to data output and conduct semiconductor memory testing with the output. For example, as discussed in the background section of the specification, built-in self-test (BIST) technology generally refers to the use of test vectors. Test vectors are sequences of signals that are applied to integrated circuitry to determine if the integrated circuitry is performing as designed. The disclosure would clearly allow one of ordinary skill in BIST technology to take the test data output and use it for BIST. Accordingly, it is respectfully submitted that the specification enables a person skilled in the art to which it pertains to use the invention commensurate in scope with claims 1-13.

In addition to the above, in making the rejection under 35 U.S.C. § 112, second paragraph, the examiner noted that claims 1 and 11 are directed to a method and circuit for testing a semiconductor memory, but the claims describe a method of getting test data to an output register and there is no test data applied and no criteria listed for passing or failing data. Applicant respectfully notes that claims should not be rejected as broader than the enabling disclosure under 35 U.S.C. § 112, first paragraph, "for non-inclusion of limitations dealing with factors which must be presumed to be within the level of ordinary skill in the art; the claims need not recite such factors where one of ordinary

skill in the art to whom the specification and claims are directed would consider them obvious.” MPEP § 2164.08. As set forth above, the use of an output test vector is known to those of ordinary skill in the BIST art. Therefore, the claims need not recite factors related to use of the test data or criteria for passing or failing data. Accordingly, it is respectfully submitted that the specification enables a person skilled in the art to which it pertains to use the invention commensurate in scope with claims 1-13.

B. 35 U.S.C. § 112, Second Paragraph, Rejections

In the June 2, 2004 Office action, the examiner rejected claims 1-10 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended claim 1 to overcome the examiner’s claim rejections under 35 U.S.C. § 112. Accordingly, it is respectfully submitted that the examiner’s rejection of claims 1-10 under 35 U.S.C. § 112, second paragraph, should be withdrawn.

IV. 35 U.S.C. § 102 and 103 Rejections

A. 35 U.S.C. § 102 Rejections

In the June 2, 2004 Office action, the examiner rejected claims 1-5, 8, and 11 under 35 U.S.C. § 102(b) as allegedly being anticipated by Abramovici. Applicant respectfully traverses this rejection, as Abramovici does not disclose all limitations of Applicant’s claims 1-5, 8 or 11.

The Abramovici reference does not disclose all the limitations of claims 1 and 11. In the June 2, 2004 Office action, the examiner states that, with respect to claims 1 and

11, "Figure 10.9(a) [of Abramovici] shows a feedback register which outputs the same sequence that is reloaded back in the same sequence (page 433)." However, the examiner fails to note where Abramovici cites other elements of claims 1 and 11. For example, Abramovici does not disclose an output register as claimed in claim 1 for use in a circuit configuration for testing a semiconductor memory. Also, Abramovici does not disclose examining digital data in an output register as claimed in claim 11 in a method for testing a semiconductor memory.

For at least the reasons discussed above, Abramovici does not disclose all limitations of claims 1 and 11 of the present application. Accordingly, it is respectfully submitted that claims 1 and 11 are allowable and the examiner's rejection of claims 1 and 11 as anticipated by Abramovici under 35 U.S.C. § 102(b) should be withdrawn. Furthermore, dependent claims 2-10 and 12-13 depend from and incorporate all the limitations of allowable independent claims 1 or 11. Accordingly, it is respectfully submitted that dependent claims 2-10 and 12-13 are also allowable for at least the same reasons the independent claims 1 and 11 are allowable.

B. 35 U.S.C. § 103 Rejections

In the June 2, 2004 Office action, the examiner rejected claims 6 and 7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Abramovici. As set forth above, independent claim 1 is allowable and dependent claims 6 and 7 both depend from and incorporate all the limitations of allowable independent claim 1. Accordingly, it is respectfully submitted that dependent claims 6 and 7 are also allowable for at least the same reasons that independent claim 1 is allowable, and applicant respectfully requests withdrawal of the examiner's rejection of claims 6 and 7 under 35 U.S.C. § 103(a).

V. Conclusion

For all of the foregoing reasons, it is respectfully submitted the applicant has made a patentable contribution to the art. Favorable reconsideration and allowance of this application is, therefore, respectfully requested.

In the event applicant has inadvertently overlooked the need for an extension of time or payment of an additional fee, the applicant conditionally petitions therefore, and authorizes any fee deficiency to be charged to deposit account 13-0014.

Respectfully submitted,



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Enclosures: Replacement drawing sheets (Fig. 1 and Fig. 2)

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to figure 1 and figure 2. These sheets replace the original sheets including figure 1 and figure 2. In both figure 1 and figure 2, suitable descriptive labels have been added as requested by the examiner pursuant to 37 CFR § 1.84(o). In particular, the following labels have been added to figures 1 and 2:

- the label “memory” has been added to each of boxes 6, 7, and 8 of figure 1;
- the label “memory testing circuitry” has been added to box 10 of figure 1;
- the label “flare register” has been added to each of boxes 11, 12 and 13 of figure 2;
- the label “mux” has been added to box 51 of figure 2; and
- the label “output register” has been added to box 41 of figure 2.